SCBM 303
Aging of Central Nervous System

Semester 2/2017

Department of Pathobiology
Faculty of Science
Mahidol University
Course Syllabus

(Lecture-Lab-Self study)

SCBM 303 Aging of Central Nervous System 2(2-0-4)

Course description

Aging Neurobiology of Central Nervous System is a branch of medical science, which is focused at aging mechanism. The topic will include anatomy, physiology and pathology of neuron system. Advance Aging Neurobiology of Central Nervous System will explain about conditions those destroy or impair neuron systems and current standard medical treatment options and advance medical sciences which can be delay or convert the process. The end of topics will review about update research and technologies in Aging Neurobiology of Central Nervous system.

Prerequisite: SCBM 304 Biological science of aging
SCBM 215 Medical Neuroscience

Type of course: required course

Session: 2nd semester, 3rd year student

Course class size: none
Course objectives

By the end of this course the students are able to understand the aging mechanism in central nervous system, the etiology, pathogenesis and pathology of aging-associated diseases in central nervous system. Understand current standard medical treatment and update research and technologies in aging neurobiology of central nervous system.

Course outline

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Topic</th>
<th>Instructor</th>
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</thead>
<tbody>
<tr>
<td>23 Feb</td>
<td>9.00-12.00</td>
<td>Course introduction and general background in aging of the nervous system</td>
<td>L1 WP</td>
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<tr>
<td>28 Feb</td>
<td>1.00-4.00 pm.</td>
<td>Nervous system intrinsic changes associated with aging</td>
<td>L2 NC</td>
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<tr>
<td>2 March</td>
<td>9.00-12.00</td>
<td>Alzheimer’s disease</td>
<td>L3 PD</td>
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<td>7 March</td>
<td>9.00-12.00</td>
<td>Environmental factors and their effect on the aging nervous system</td>
<td>L4 WJ</td>
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<tr>
<td>9 March</td>
<td>9.00-12.00</td>
<td>Protein homeostasis and aging</td>
<td>L5 PS</td>
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<tr>
<td>15 March</td>
<td>9.00-12.00</td>
<td><strong>Midterm Examination (L1-L5)</strong></td>
<td></td>
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<tr>
<td>21 March</td>
<td>9.00-12.00</td>
<td>Amyotrophic lateral sclerosis (ALS)</td>
<td>L6 LTJ</td>
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<tr>
<td>1.00-4.00 pm.</td>
<td>Aging’s effects on regeneration and repair</td>
<td>L7 NC</td>
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<tr>
<td>23 March</td>
<td>9.00-12.00</td>
<td>Huntington’s disease</td>
<td>L8 NK</td>
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<tr>
<td>28 March</td>
<td>9.00-12.00</td>
<td>Parkinson’s disease (PD)</td>
<td>L9 SN</td>
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<td>30 March</td>
<td>9.00-12.00</td>
<td>Update research and technologies in aging neurobiology</td>
<td>L10 WP</td>
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<tr>
<td>18 April</td>
<td>9.00-12.00</td>
<td><strong>Final Examination (L6-L10)</strong></td>
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<td>30 hr</td>
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Teaching Method

Lectures in class 30 hours
Teaching Media

1. Class handouts, Powerpoint presentation
2. Textbooks

Measurement and Evaluation of Students Achievement

1. Class attendance 10%
2. Assignments/ in class activity/ quiz 40%
3. Written Examination (short answer) 50%
4. Student Examination Grade = A, B+, B, C+, C, D+, D, F

References


Instructors

1. LTJ = Laran T. Jensen, Ph.D
2. NC = Nisamanee Charoenchon, Ph.D
3. NK = Niwat Kangwanrangsan, Ph.D
4. PD = Associate Professor Permphan Dharmasaroja, Ph.D
5. PS = Assistant Professor Prasit Suwannalert, Ph.D
6. SN = Somphong Narkpinit, M.D.
7. WJ = Associate Professor Wannee Jiraungkoorskul, Ph.D
8. WP = Witchuda Payuhakrit, Ph.D

Course Coordinator:

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